

What is claim is

1. A method for manufacturing a white light source, the method including following steps:

providing a radiation source; and

5 providing a semiconductor-type phosphor with (Zn, Cd)S being a host matrix with foreign ions added thereto as luminescence centers;

wherein the radiation source emits light ranging from about 495nm (blue-green light) to 340nm (ultra-violet).

2. The method for manufacturing a white light source as in claim 1,
10 wherein the foreign ions are Ag ions, Cu ions, Cl ions or a combination thereof, and preferably Ag ions with Cl ions.

3. The method for manufacturing a white light source as in claim 1, wherein the radiation source is a light emitting diode.

4. The method for manufacturing a white light source as in claim 1,
15 wherein the radiation source comprises an electron beam and plasma.

5. The method for manufacturing a white light source as in claim 1, wherein the semiconductor-type phosphor is prepared by chemosynthesis, solid-gas sintering, direct reaction or organic metal thermal decomposition.

6. The method for manufacturing a white light source as in claim 1,
20 wherein the semiconductor-type phosphor is adjusted in weight ratio with respect to a packing material.